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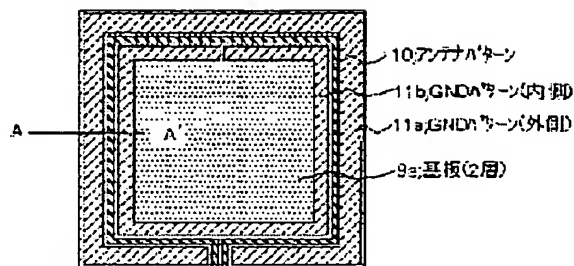
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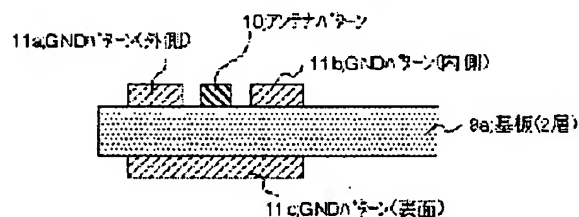
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TITLE : ANTENNA FOR RFID AND RFID
SYSTEM HAVING THE ANTENNA

(a)



(b)



ABSTRACT : PROBLEM TO BE SOLVED: To provide an antenna for RFID and an RFID system, having the antenna whereby a regulated distant electric field can be reduced, without attenuating a near electric field used for communication and manufacturing can be performed at a low cost.

SOLUTION: An antenna used for a reader/writer or a transponder of the RFID system is formed on a substrate 9a having a two-layer structure. A coplanar waveguide is formed on the surface side of the substrate. The coplanar waveguide comprises a loop antenna pattern 10 of one or more turn and GND patterns 11a and 11b, arranged in parallel at predetermined intervals outside and inside the antenna pattern 10. On the back side, a GND pattern 11c is formed which has an outer edge substantially coinciding with the outer edge of the GND pattern 11a which is placed outside the surface, and an inner edge substantially coinciding with the outer edge of the GND pattern 11a, which is placed inside the surface. The shielding effect of the GND patterns makes it possible to reduce the intensity of a far electric field to a predetermined value or lower, without reducing near magnetic field.

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